



SUTEE – Showcasing Urban Trees for Environmental Education

Michael Eichhorn, Alexander Tillmann



**Co-funded by
the European Union**

Website: www.sutee.eu

Erasmus+ 2023-1-ES01-KA220-SCH-000153498

Project relevance / Starting point

The SUTEE project addresses the horizontal EU priority of *“Environment and fight against climate change”*

The SUTEE project is dedicated to contributing to the fight against climate change, with a special focus on natural environments (trees, green spaces, riversides) in regions affected by growing urbanisation, i.e. big metropolitan areas. It connects five major European cities in their efforts to tackle urban heat islands, air/noise pollution, soil moisture deficits, etc. with a number of educational measures to raise **environmental awareness** in the young urban population. The project uses and develops modern technologies like IoT sensors, linked open data, and smartphone apps to facilitate the pedagogic exploration of highly complex information and datasets on city environments and micro-climates by students and their teachers. With this approach, the project will advance the competences of educators in two very important domains: data-based learning/digitisation and environmental education.

An overarching collection of urban development documents, EU strategies, competence frameworks (DigComp, GreenComp), and individual initiatives will provide a more comprehensive systems overview than is currently available to the ordinary city population.

Summary and Motivation

The SUTEE project aims at educating teachers and young people in the importance of environmental protection in dense metropolitan areas, both for human well-being and when addressing climate change. Since urban areas are particularly affected, the project tries to bring educational innovation to reacting to this societal and ecological challenge. The project will combine suitable ambient technologies (sensors, IoT) with inquiry-based pedagogy in search for a wider democratic involvement.

The generations of the 21st century are being confronted with two major challenges: the natural environment and technology. The urgency of protecting the climate, biodiversity and the remaining natural environment has seen public attention for some time now. It has entered the public discourse, especially through spectacular protests by activists, but also through a large number of dispersed local projects by a variety of actors, authorities and NGOs. Cities and densely populated areas have emerged as an important focus area, where specific measures are required to combat urban heat islands (UHIs) and to maintain and enhance the natural protection of tree canopies. Yet, for ordinary citizens and young people it is not quite possible to make sense of the different actors and drivers behind these struggles. As a matter of empowerment and democratic participation, therefore, a solid environmental education initiative is needed that permeates the mist of the media discussion and political rhetoric.



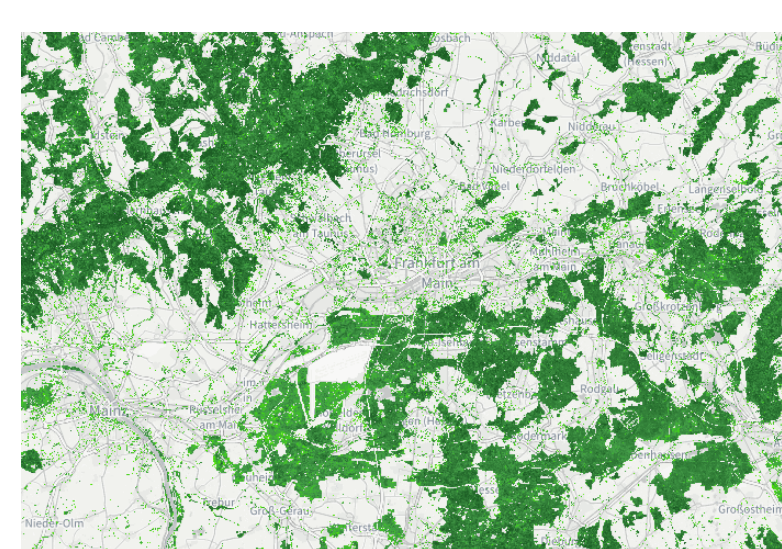
SUTEE Competence Framework

The SUTEE Competence Framework was developed as part of the project by studiumdigitale at Goethe University Frankfurt. It is a synthesis of the two EU Competence Frameworks, DigComp and GreenComp, and combines the intersections of these two frameworks. It describes green digital competences – digital competences in an ecological context - along five competence areas:

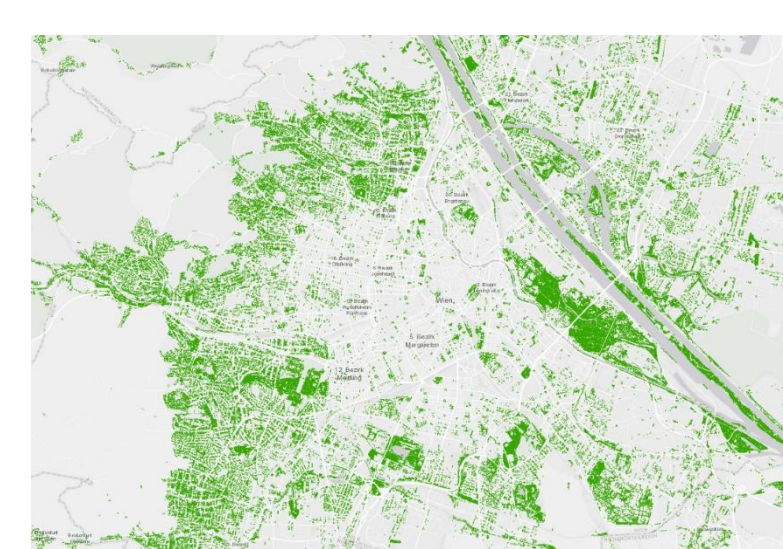
DigComp		SUTEE Comp		GreenComp
1.1 Browsing, searching and filtering data, information and digital content 1.2 Evaluating data, information and digital content		1. Data and Information Competence		2.1 Systems thinking 2.3 Problem framing
2.1 Interacting through digital technologies 2.2 Sharing through digital technologies 2.3 Engaging citizenship through digital technologies 2.4 Collaborating through digital technologies		2. Communication and Collaboration for Sustainability		4.1 Political agency 4.2 Collective action
5.2 Identifying needs and technological responses 5.3 Creatively using digital technologies		3. Critical Thinking and Problem Solving		2.2 Critical thinking
4.3 Protecting the environment		4. Safety and Data Protection in Sustainable Contexts		4.3 Individual Acting for Sustainability
3.1 Developing digital content 3.2 Integrating and re-elaborating digital content		5. Creative Content Development for Sustainable Future Visions		3.1 Futures Literacy 3.2 Adaptability 3.3 Exploratory thinking

Urban tree canopy

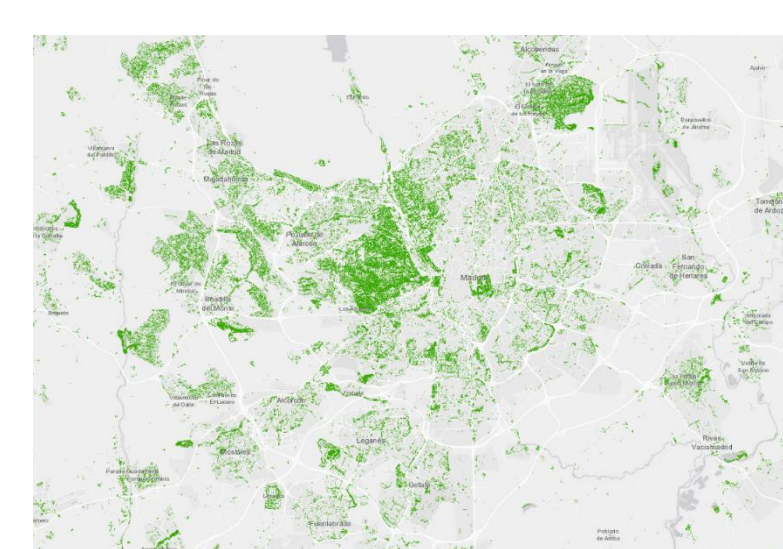
Frankfurt



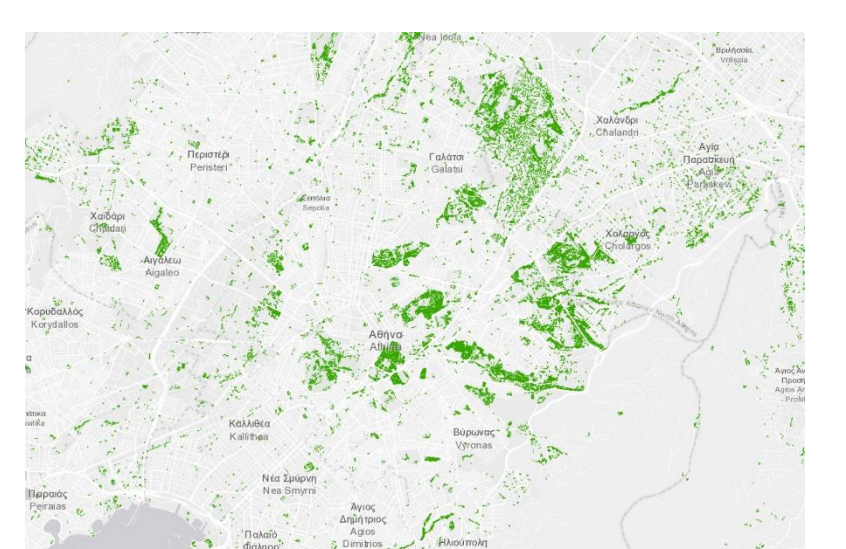
Vienna



Madrid



Athens



Consortium partners

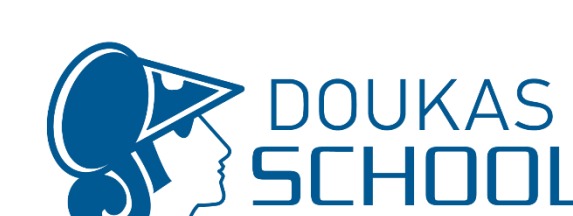
Universidad Politécnica de Madrid (Lead)



Pädagogische Hochschule Wien



Douka Ekpaidefteria AE



Universidad Nacional de Educación a Distancia

